Comprehensive Cancer Centres

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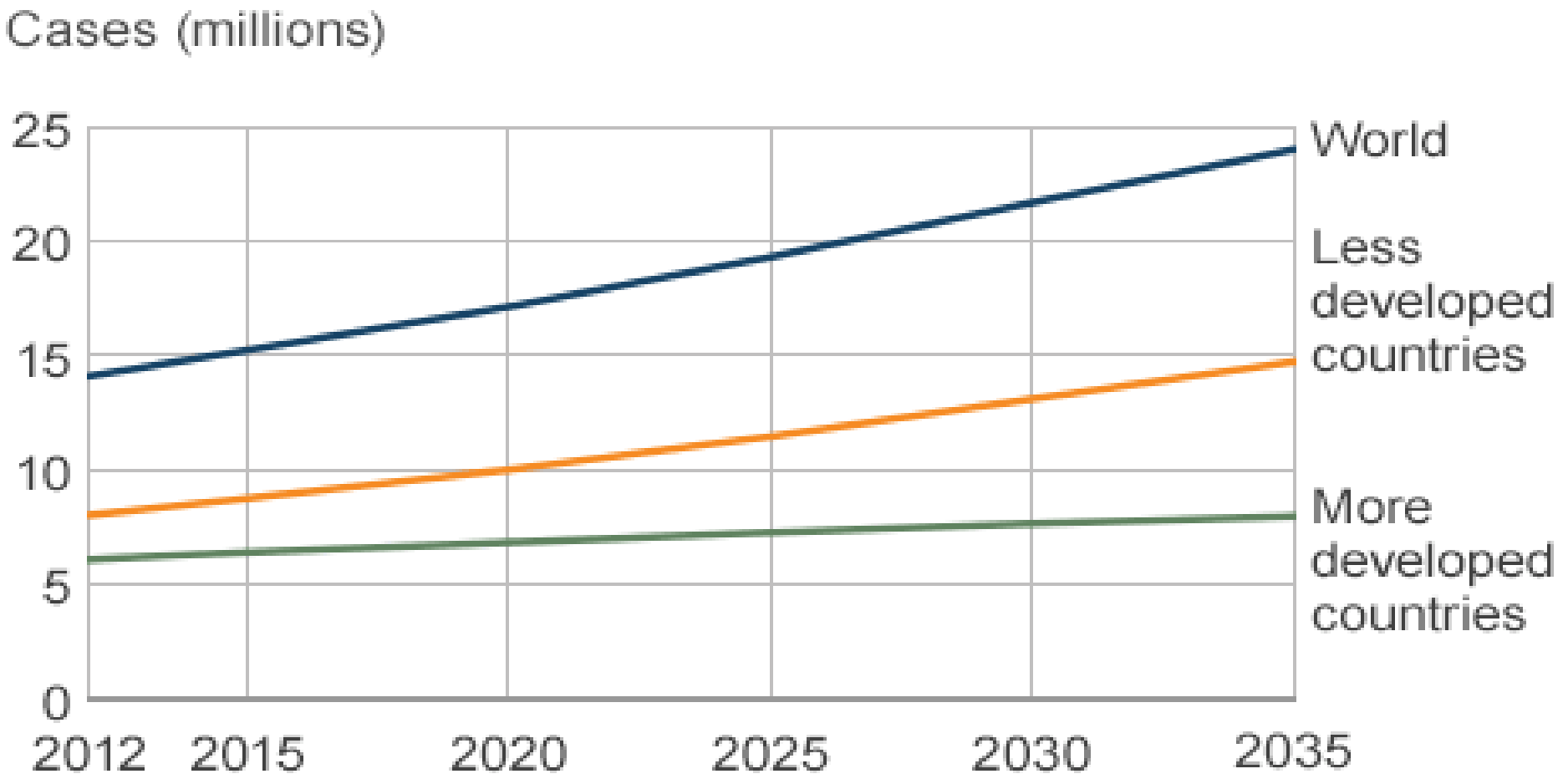
Tsunami of cancer coming ……

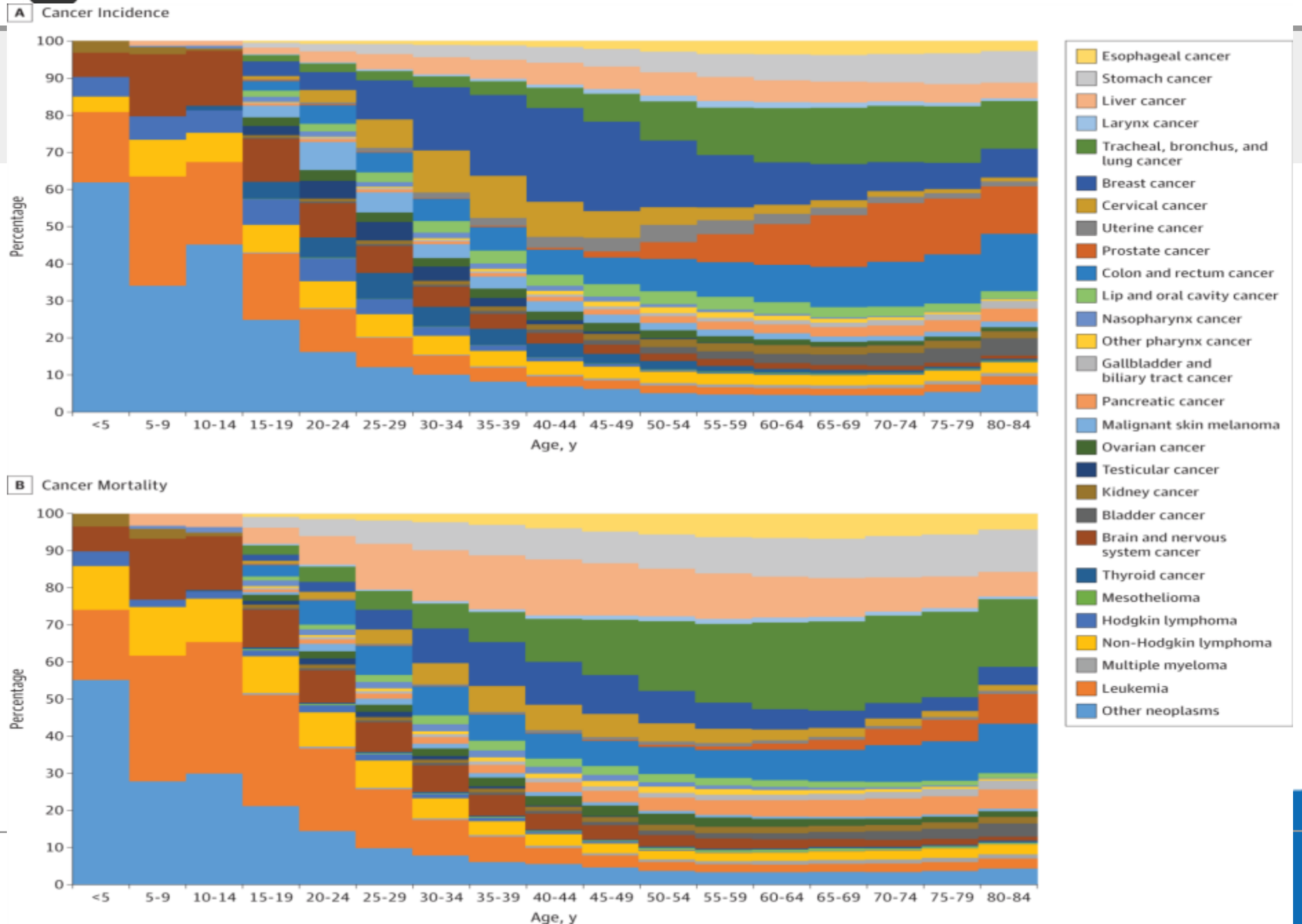
GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012

Predicted Global Cancer Cases



Source: WHO GloboCan

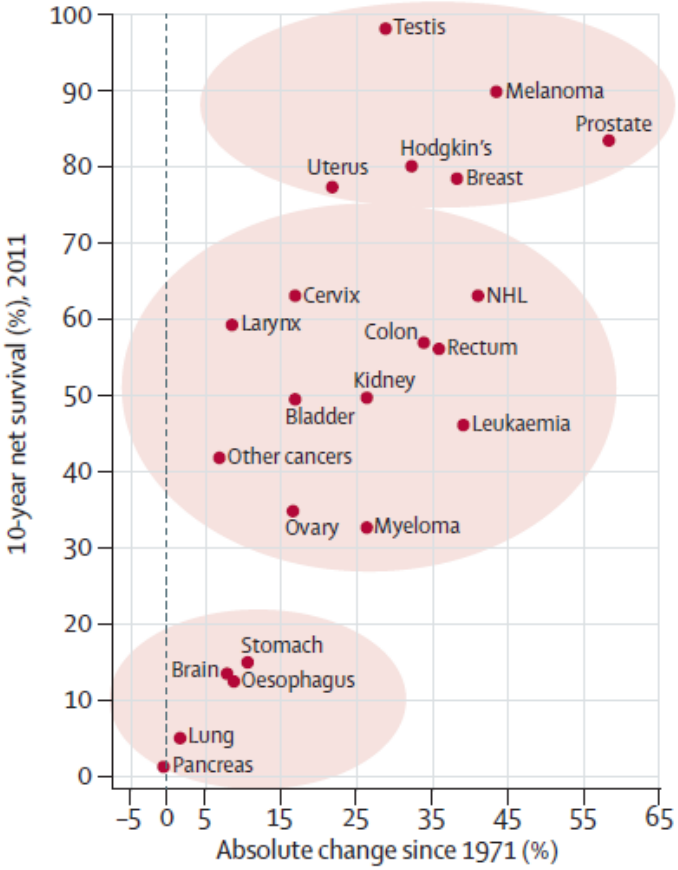
The JAMA Network



Cancer: a heterogeneous disease needing a tailored response

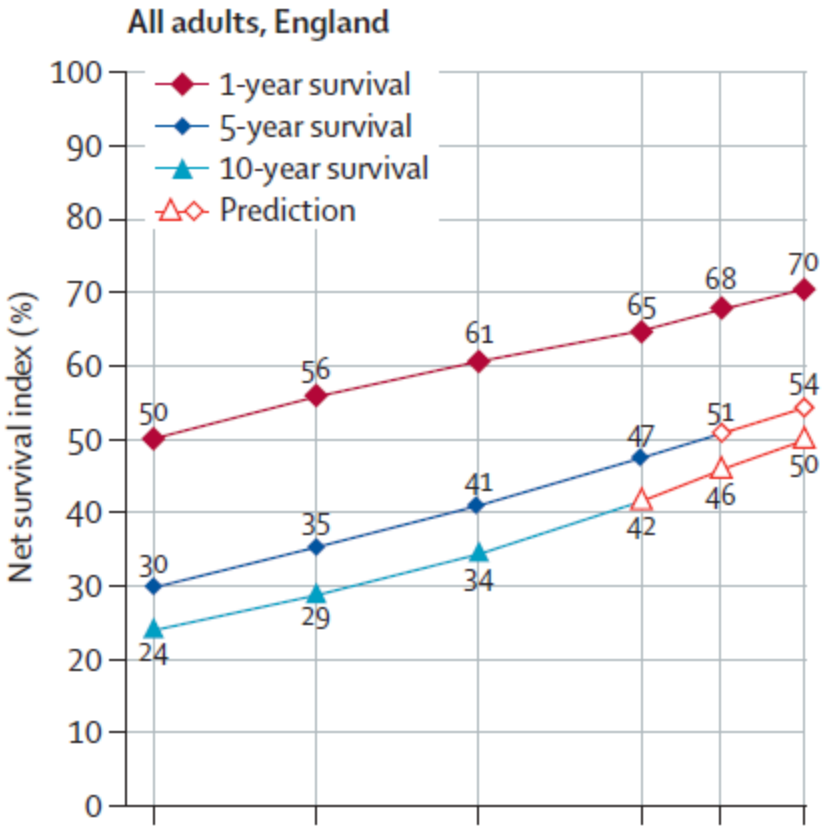
- Patterns differ by region, development and country
- Patterns are evolving over time
- Risk factors also vary by region and country and encompass far more than those common to NCDs
- Prevention works, but takes time
- Cancer differs remarkably in molecular characteristics: implications for early detection and therapy
- Cancer patients access almost the full spectrum of healthcare services (other than obstetrical services)
- Optimal cancer control requires well functioning health system

Huge progress has been achieved



40-year trends in an index of survival for all cancers combined and survival adjusted for age and sex for each cancer in England and Wales, 1971–2011: a population-based study

Manuela Quaresma, Michel P Coleman, Bernard Rachet



www.thelancet.com Published online December 3, 2014 http://dx.doi.org/10.1016/S0140-6736(14)61396-9

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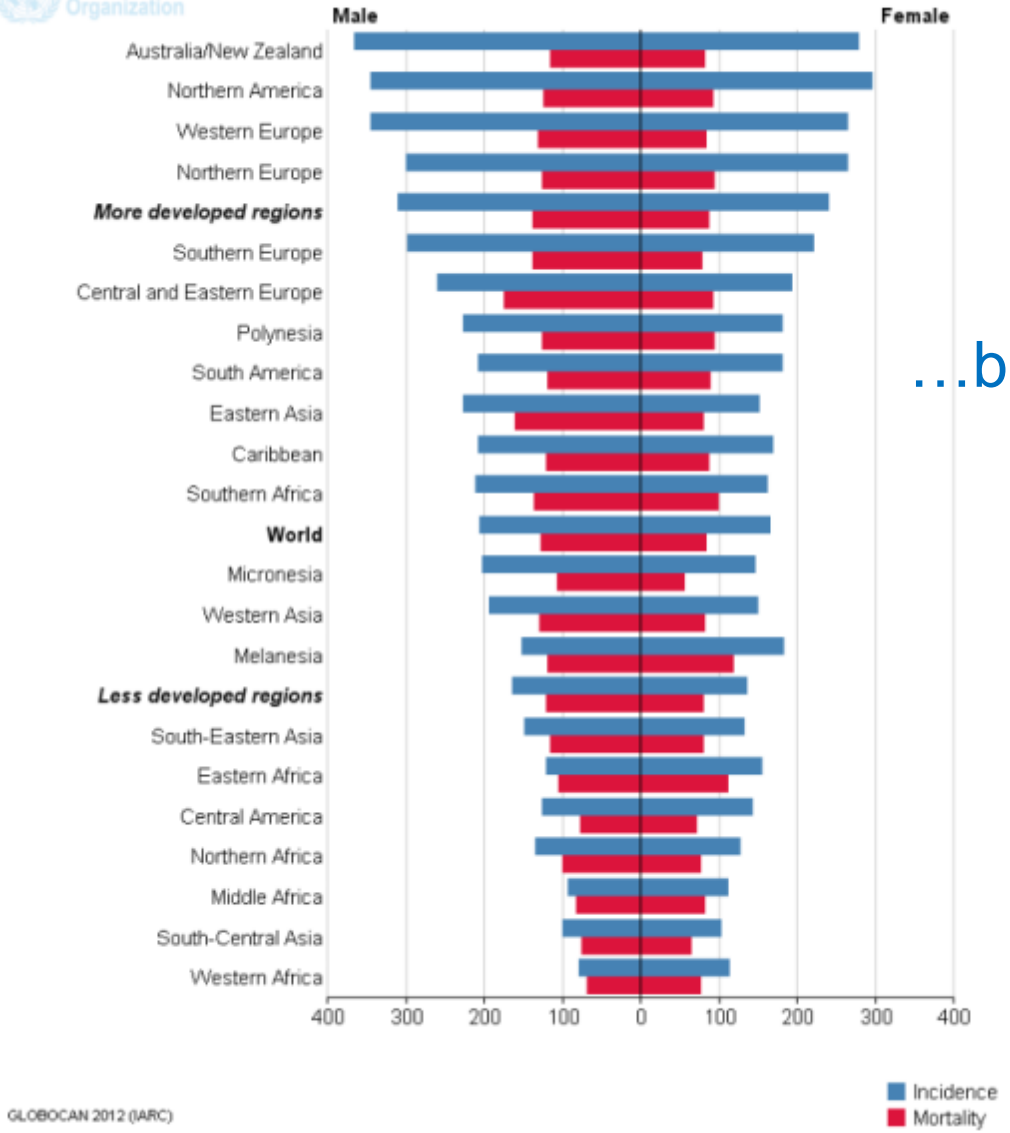


…but huge gaps in equity exist

Equity Gap

- Availability of care
  - Prevention, early detection, diagnostic services
  - Facilities, health professionals, equipment
  - Health systems
- Affordability
  - Poverty, catastrophic expense, UHC
- Awareness - Education, stigma

Gaps seen in access to surgery, radiotherapy, medications, palliative care……

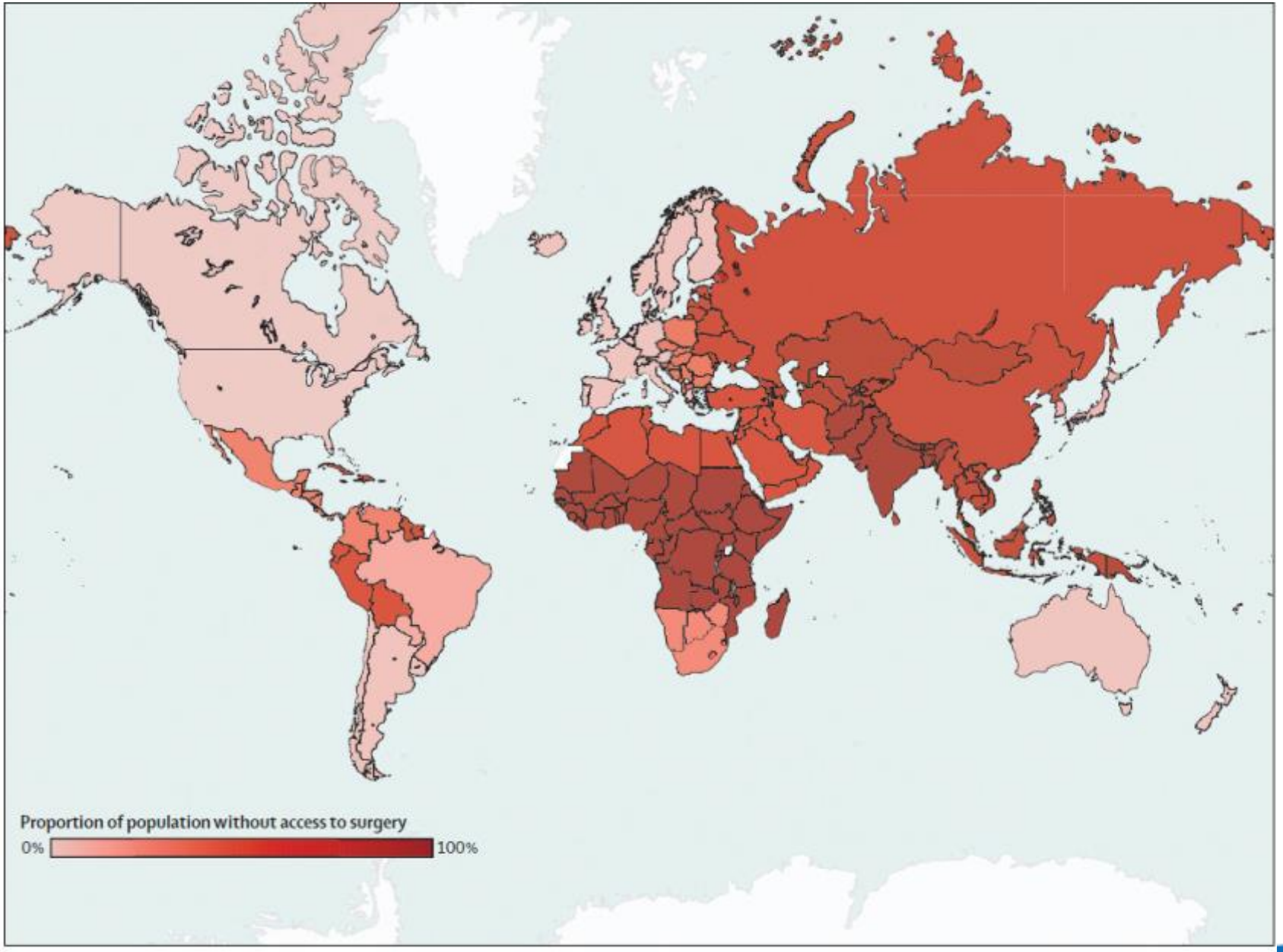
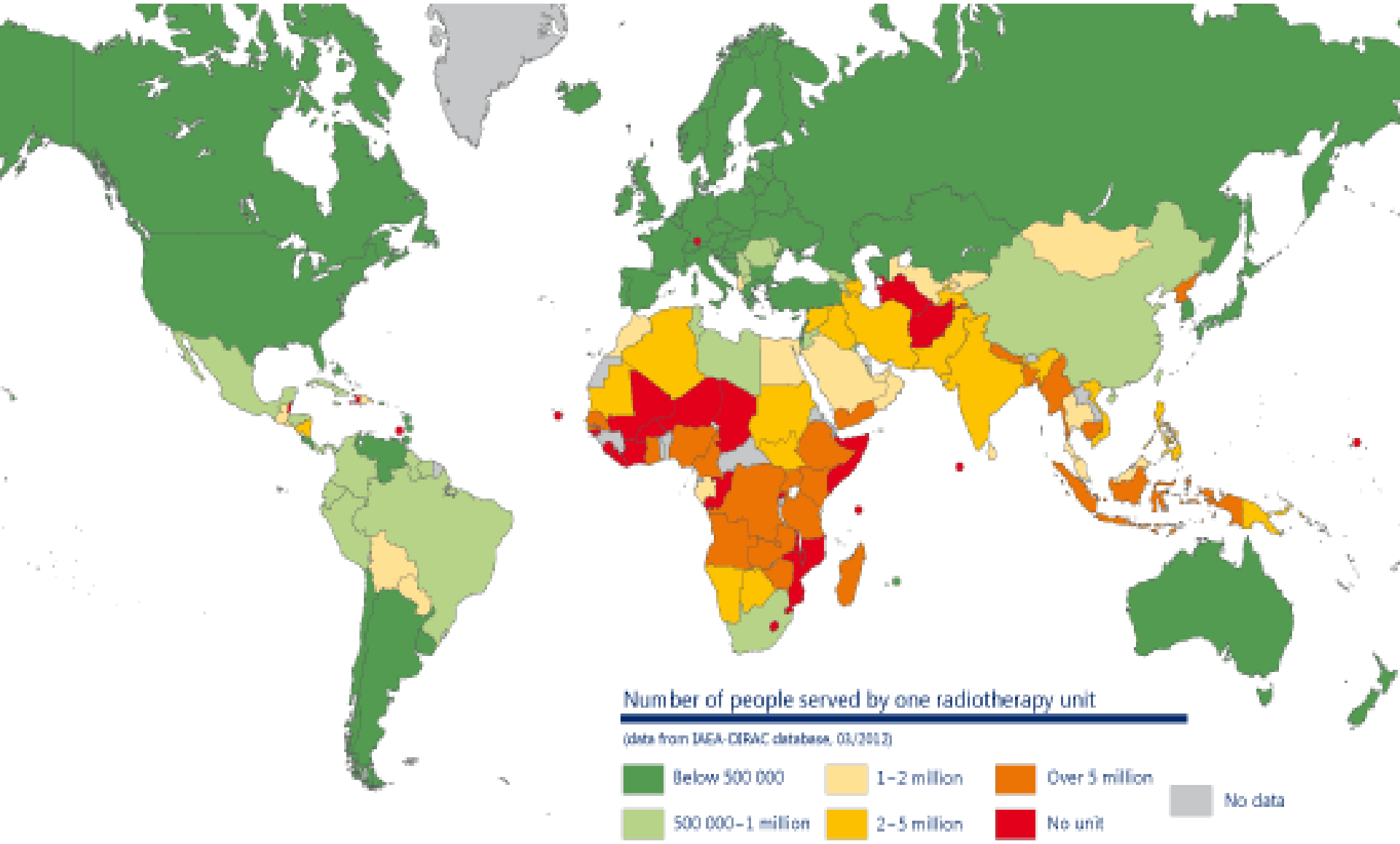


Figure 2: Proportion of the population without access to safe, affordable surgery and anaesthesia by Institute for Health Metrics and Evaluation region (selective tree)[25,29]



Population per radiotherapy treatment unit.

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Use of and barriers to access to opioid analgesics: a worldwide, regional, and national study

Stefano Berterame, Juliana Erthal, Johny Thomas, Sarah Fellner, Benjamin Vosse, Philip Clare, Wei Hao, David T Johnson, Alejandro Mohar, Jagjit Pavadia, Ahmed Kamal Eldin Samak, Werner Sipp, Viroj Sumyai, Sri Suryawati, Jallal Toufiq, Raymond Yans, Richard P Mattick

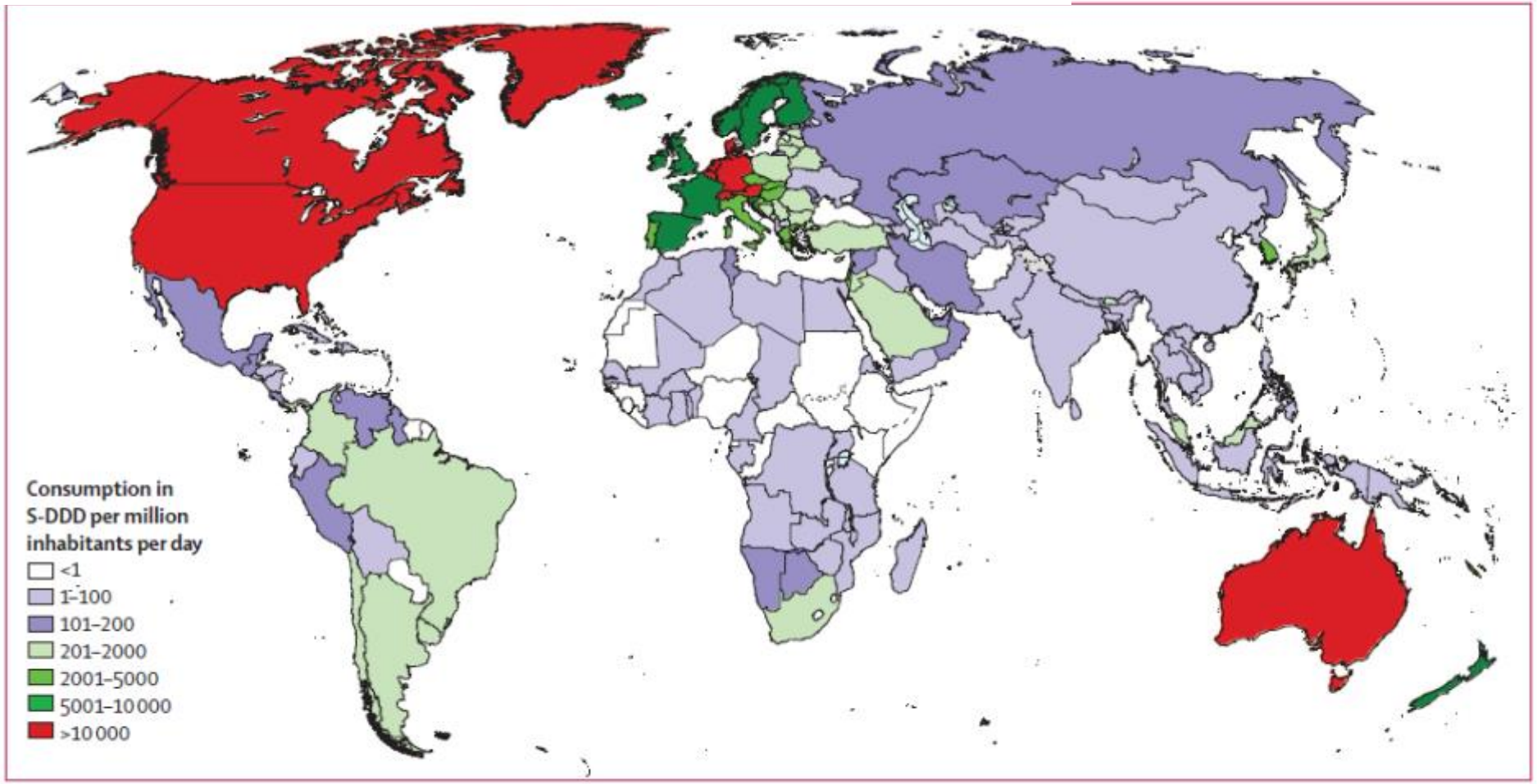

Figure 2: Mean availability of opioids for pain management in 2011–13

Lancet 2016; 387: 1644–56

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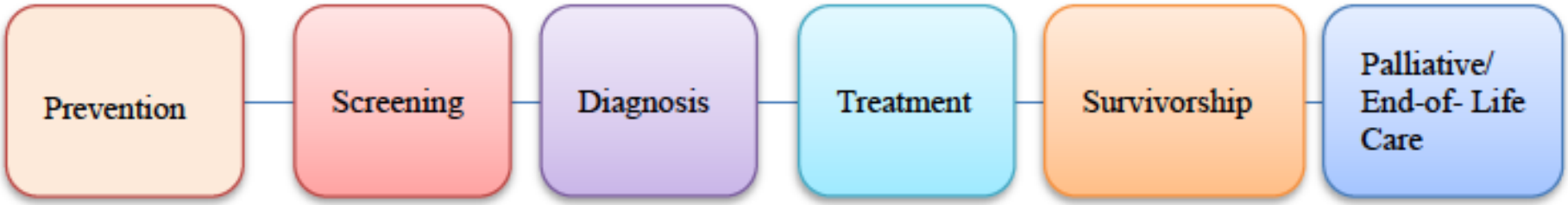
Cancer Control

…..designed to reduce cancer incidence and mortality and improve quality of life of cancer patients, through the systematic and equitable implementation of evidence-based strategies for the prevention, early detection, diagnosis, treatment and palliation…..

(WHO 2002)



Adapted from Cancer Care Ontario, 2013b

Quality in Health Care

- Patients get the care they need
- Patients need the care they get
- Care is delivered safely
- Care is delivered on time
- Care is patient centred
- Care is equitable

IOM Report – Crossing the Quality Chasm

Goals of the IOM Report Recommendations

1. Provide patients and their families with understandable information about cancer prognosis, treatment benefits and harms, palliative care, psychosocial support, and estimates of the cost of care.
2. Provide patients with end-of-life care consistent with their needs, values, and preferences.
3. Deliver coordinated, team-based cancer care within cancer care team and with primary care/geriatrics.
4. Develop core competencies for cancer care across the workforce and ensure that all individuals caring for patients with cancer have appropriate core competencies.
5. Expand breadth of cancer research data collected so that they reflect the population with the disease, such as the elderly and patients with comorbid conditions.

Goals of the IOM Report Recommendations

6. Expand depth of cancer research data available for assessing interventions through a common set of data elements that capture patient-reported outcomes, relevant patient characteristics, and health behaviors.
7. Develop a learning health care information technology system for cancer that enables real-time analysis of data from patients in a variety of care settings.
8. Develop a national quality reporting program for cancer care as part of a learning health care system.
9. Implement a national strategy to reduce disparities in access to cancer care for vulnerable and underserved populations by leveraging community interventions.
10. Improve the affordability of cancer care by leveraging existing efforts to reform payment and eliminate waste.

Essential services for cancer

- Diagnostic
  - Pathology
  - Laboratory medicine
  - Imaging
- Surgery
- Radiotherapy
- Chemotherapy
- Palliative care

Shortage of facilities, equipment and people

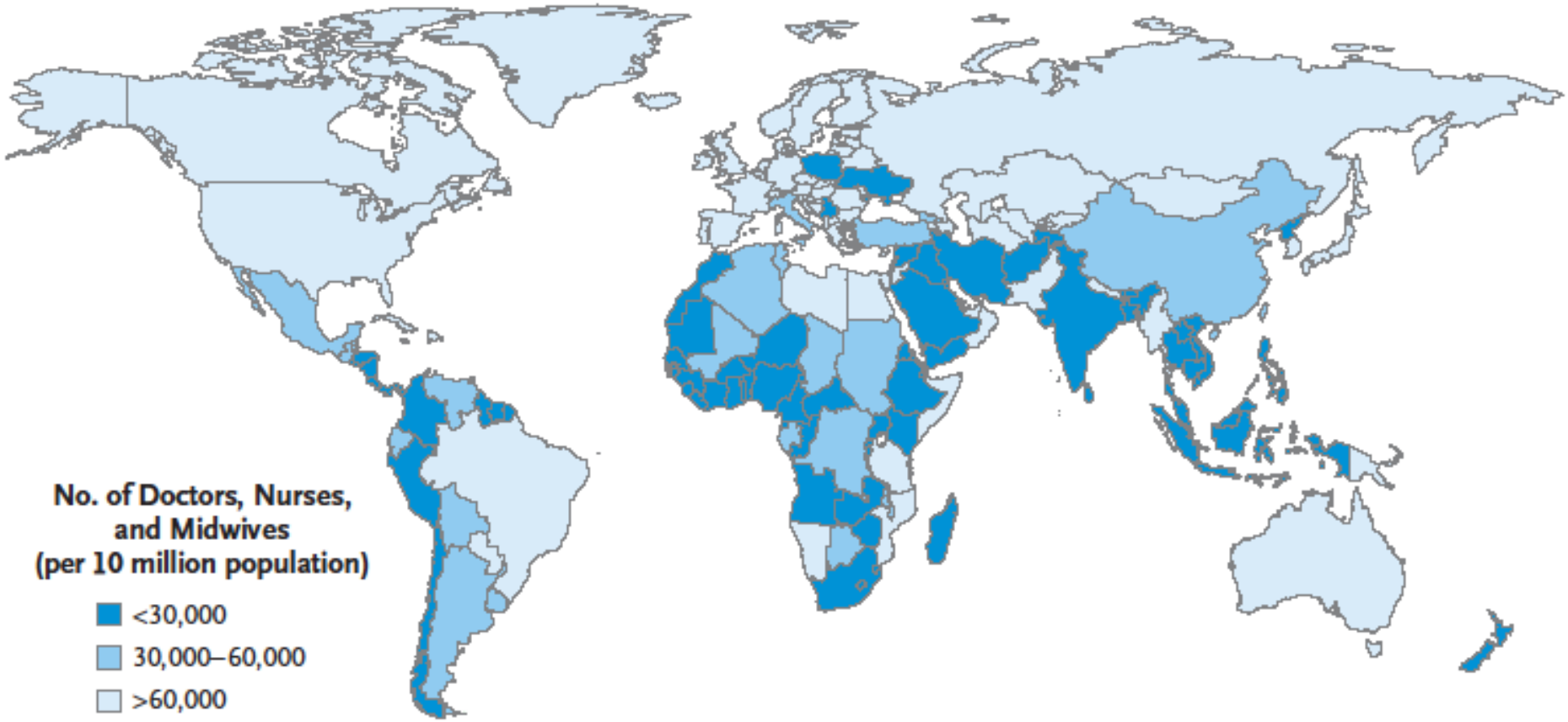


Figure 1. Doctors, Nurses, and Midwives per 10 Million Population, 2011.

Year 2011 data were not available for some countries; in those cases, the most recent available data are shown. Data are from the World Health Organization (WHO) Global Health Workforce Statistics.[9]

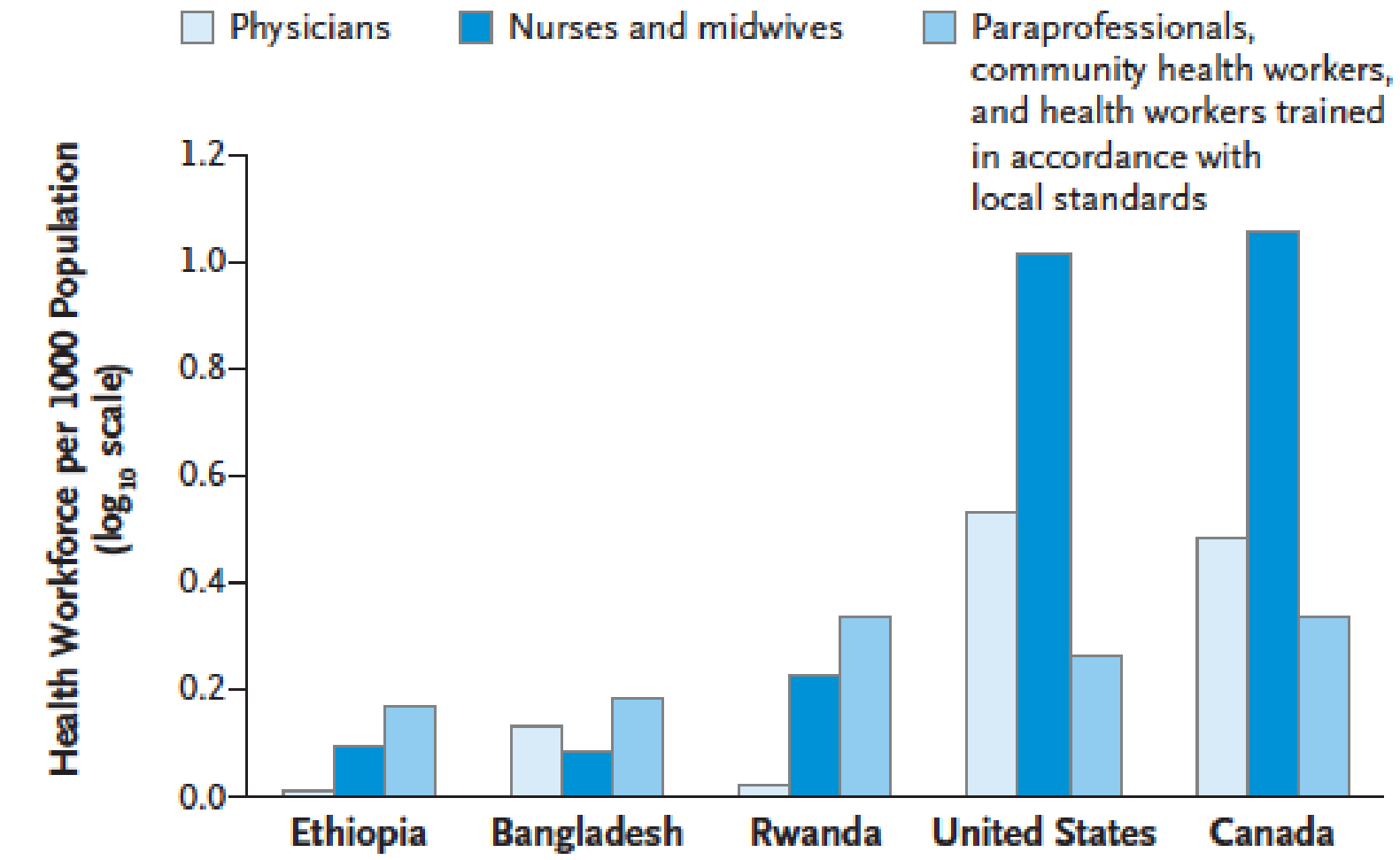
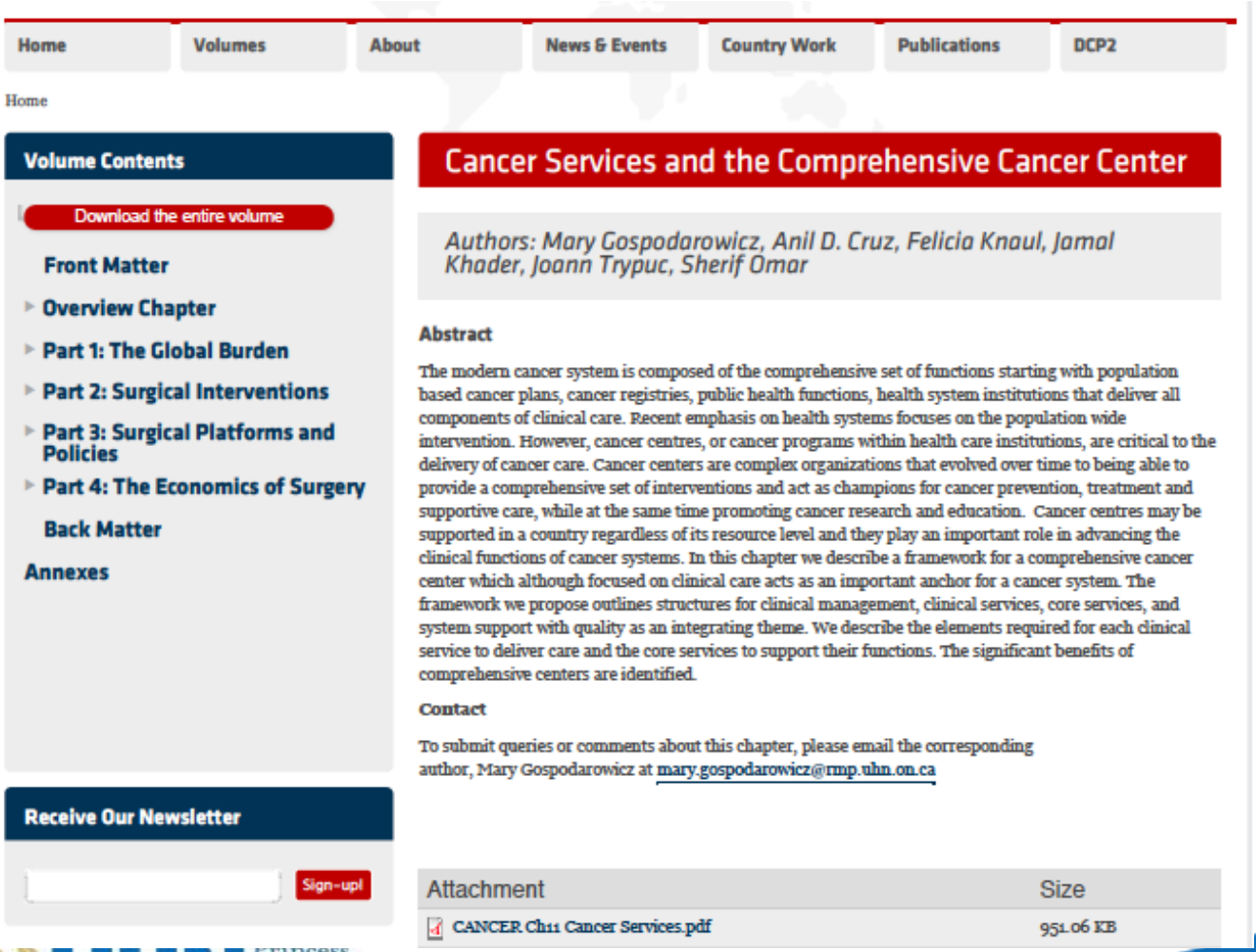


Figure 3. Health Workforce in Five Countries, According to Type of Health Worker, 2011.

N Engl J Med 2014;370:950-7.

Cancer Services Comprehensive Cancer Centre



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Annexes

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Cancer Services and the Comprehensive Cancer Center

Authors: Mary Gospodarowicz, Anil D. Cruz, Felicia Knaul, Jamal Khader, Joann Trypuc, Sherif Omar

Abstract

The modern cancer system is composed of the comprehensive set of functions starting with population based cancer plans, cancer registries, public health functions, health system institutions that deliver all components of clinical care. Recent emphasis on health systems focuses on the population wide intervention. However, cancer centres, or cancer programs within health care institutions, are critical to the delivery of cancer care. Cancer centers are complex organizations that evolved over time to being able to provide a comprehensive set of interventions and act as champions for cancer prevention, treatment and supportive care, while at the same time promoting cancer research and education. Cancer centres may be supported in a country regardless of its resource level and they play an important role in advancing the clinical functions of cancer systems. In this chapter we describe a framework for a comprehensive cancer center which although focused on clinical care acts as an important anchor for a cancer system. The framework we propose outlines structures for clinical management, clinical services, core services, and system support with quality as an integrating theme. We describe the elements required for each clinical service to deliver care and the core services to support their functions. The significant benefits of comprehensive centers are identified.

Contact

To submit queries or comments about this chapter, please email the corresponding author, Mary Gospodarowicz at mary.gospodarowicz@rmp.uhn.on.ca

Attachment	Size
CANCER Ch11 Cancer Services.pdf	951.06 KB

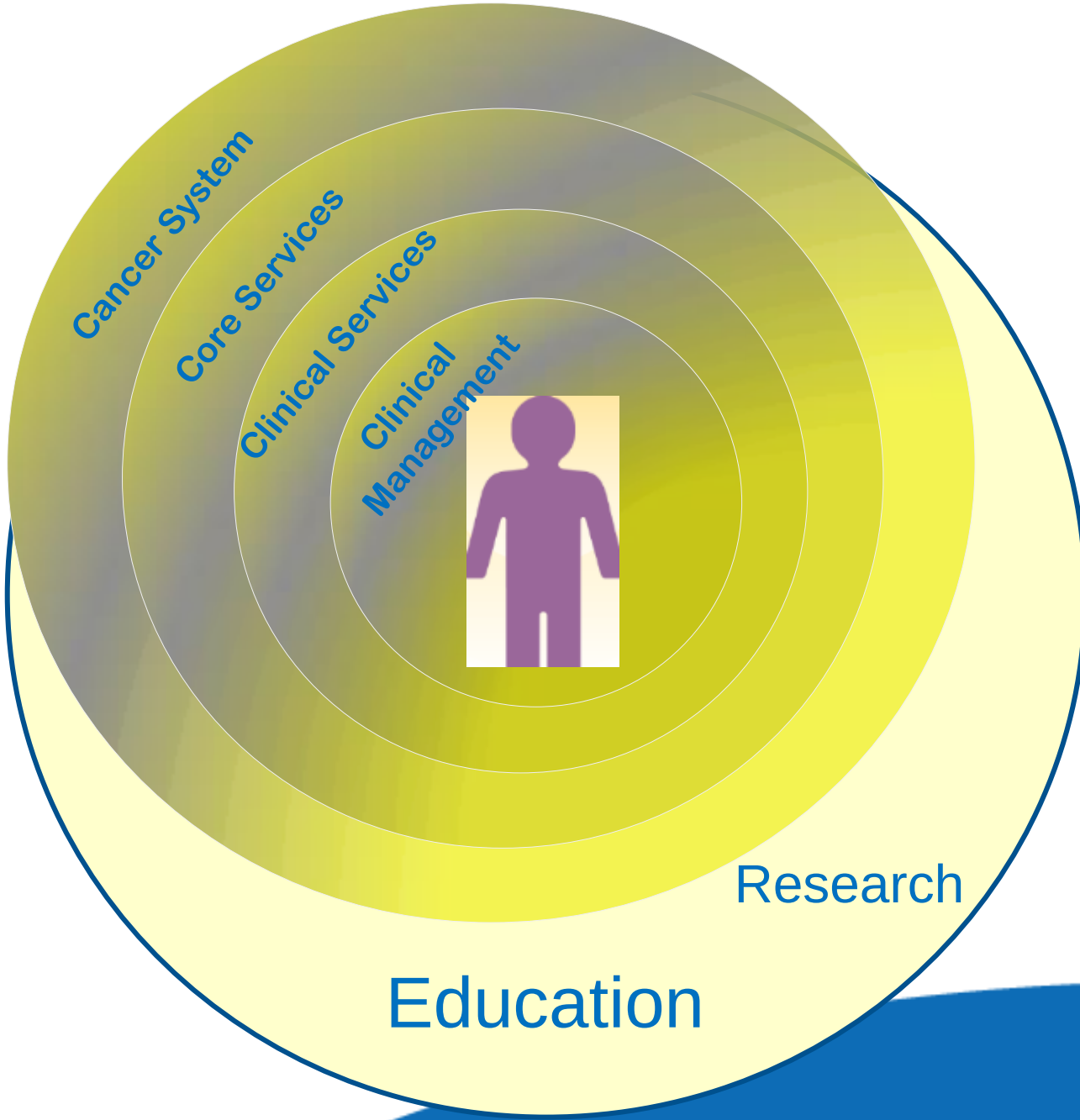
Background

- A comprehensive cancer system is one that addresses cancer prevention, screening and early detection, diagnosis, treatment, supportive and palliative care, policy and advocacy (WHO)
- We describe the framework for planning and organization of services that must be put in place to support such a system

The Framework is equally relevant to high income countries as it is to middle and low income countries

Different areas of the world are at different stages of development.

Each needs to assess its cancer burden, existing capacity and resources, government resources, and opportunities provided by professional or volunteer cancer advocates to drive improved access to quality cancer care.



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Clinical Management

- A framework for decision making in cancer screening, diagnosis, treatment, support, and on-going care
- Includes objectives of care, recommendations for appropriate interventions, and appropriate time frames.
- Care plans (simple to very complex) must be aligned to the local context and consider available services
- Importance of clinical practice guidelines to standardize clinical care is widely recognised
- Cancer centres in LMIC have adapted guidelines to their needs
- A modern comprehensive cancer centre should have
  - practice guidelines for various clinical scenarios
  - process for multidisciplinary decision making and review
  - process for review of the quality of clinical care
- Engagement in research / training programs is recommended

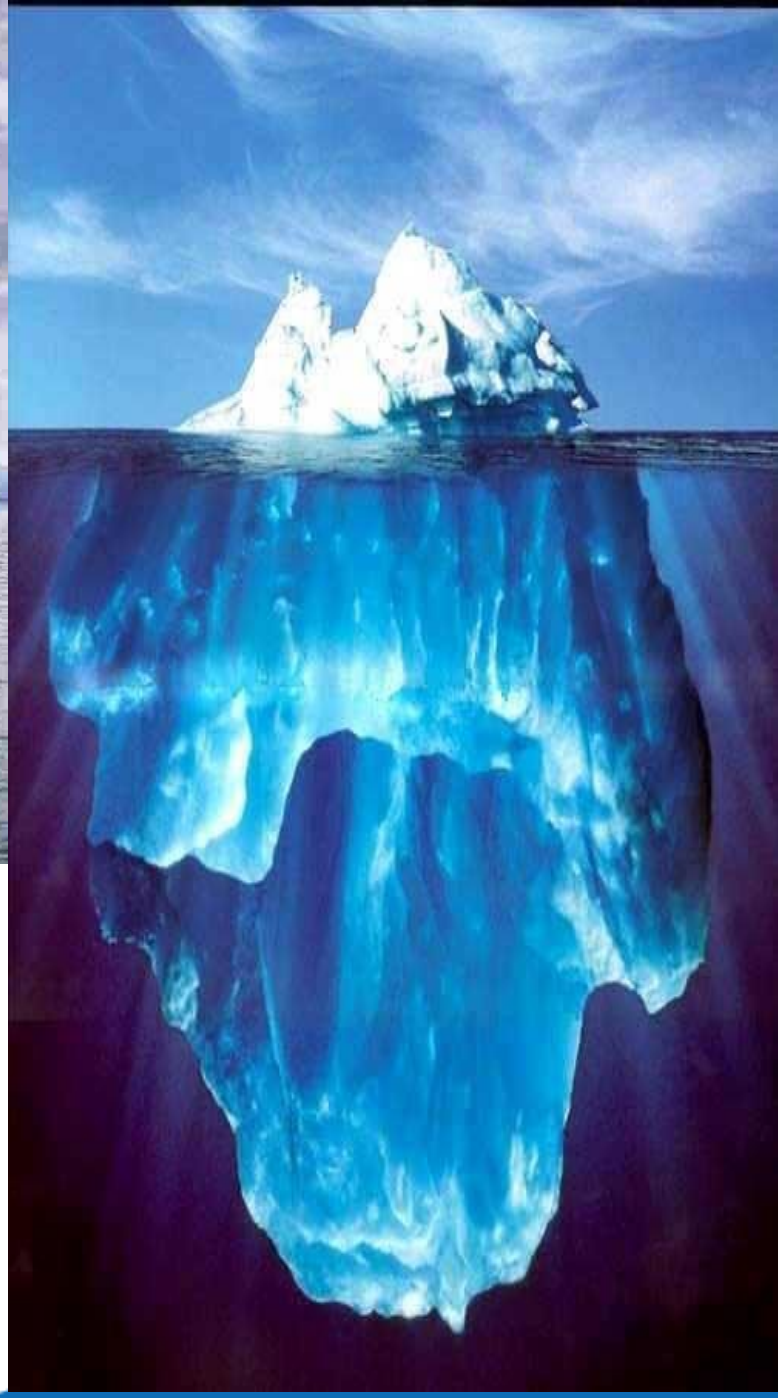
Clinical Services

- Clinical management plans identify required interventions to care for the patient. Specialised clinical services are needed to provide these interventions
- Generally, these services need special accreditation and are subject to external review and control - countries/regions may have general accreditation standards and service-specific credentialing bodies
- Clinical services usually required for cancer include:
  - Office/Clinic Ambulatory Care
  - Diagnostic Imaging
  - Pathology and Laboratory Medicine
  - Surgery
  - Systemic Therapy
  - Radiation Therapy
  - Palliative Care, Pain Control
  - Supportive Care and Survivorship

Core Services - Infrastructure

A suite of common services that extends across a health care facility required to support the comprehensive range of cancer services:

- Administration / Management
- Human resources – professional development / competence
- Information technology
- Health records
- Quality and safety programs management
- Admission and discharge planning, patient transport
- Infection prevention and control
- Pharmacy and drug supply
- Equipment and technology support services
- Supplies and materials management – supply chain management
- Telecommunications
- Facilities
- Fire safety and radiation protection
- Occupational health and safety



Cancer centres are like icebergs.
To float seemlessly, what is apparent to the public and patients must be supported by a solid infractructure of invisible services……

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Population-based Cancer System

- Cancer services need to be integrated within a population-based system that includes:
  - National/Regional Cancer Plans
  - Public Education and Awareness
  - Prevention and Screening Programs
  - Cancer Registries
  - Education system
  - Research
  - Non-government organisations and support groups

Research and Education

- Cancer services - nimble, responsive to change
  - Engagement in research is crucial
- Education - essential mandate of cancer centres
  - Formal training programs for future professionals
  - Maintenance of competence and professioanl development
  - Patient and public education
- Cancer centres in LMIC should have a mandate to ‘clone’ themselves and build local cancer care capacity

Implementation

- Lower income countries may support only a subset of activities at the beginning
- The framework provides a base from which future needs can be organized
- This combined with identifying the cancers with the greatest burden that are also most preventable and treatable, as well as a palliative care plan, should form the basis for a country's efforts at planning cancer care and control

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"It is not only what we do, but also what we do not do, for which we are accountable."

Moliere

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uicc
global cancer control
A MEMBERSHIP ORGANISATION
FIGHTING CANCER TOGETHER

Thank you

uicc
global cancer control
A MEMBERSHIP ORGANISATION
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SUPPLEMENTARY SLIDES

Cancer Control Plans

THE ICCP PORTAL: THE ONLINE 'ONE-STOP SHOP' FOR INTERNATIONAL CANCER CONTROL

Launched by the International Cancer Control Partnership (ICCP) in November 2013 at the World Cancer Leaders' Summit, the ICCP Portal is a web-based tool on cancer control planning and capacity-building, linked to non-communicable diseases (NCD) control and prevention.

on experiences in the field of cancer control. The Portal will shortly host networks related to specific topics on the cancer care continuum that pull the latest evidence together and identify best practices in those fields. The Cancer Prevention Network is the first among these networks, to be launched at the World Cancer Congress in 2014, and showcase a multimedia library of prevention campaigns, along with social marketing resources, policies and research papers.

European Guidelines for Quality National Cancer Control Programmes

- Cancer data and information
  - Registries, coding
  - Outputs, outcomes
- Research
  - Investment
  - Regulatory framework
  - Patient participation
  - Regulatory framework

European Guidelines for Quality National Cancer Control Programmes

- Integrated Care
- Diagnostics
- Treatment
  - Surgery, radiotherapy, chemotherapy
- Improving quality
  - CPGs, concentration of services, rare tumours
  - MDTs, networking collaboration
  - Surveillance after treatment
  - Patients' role

European Guidelines for Quality National Cancer Control Programmes

- Psychosocial oncology
  - Distress screening
- Survivorship and rehabilitation
  - Late effects
  - Self care
- Palliative and End of Life Care
  - Pain control
  - Advanced care planning

European Guidelines for Quality National Cancer Control Programmes

- Supportive functions within Health System
  - Governance and financing
    - UHC, catastrophic expenses
  - Cancer resources
    - Human resources – training, mix, non-health professionals
    - Infrastructure
    - Health technology
    - Cancer therapy – drug supply

High-Quality Cancer Care Delivery System

a conceptual framework

Safe, Effective, Patient-centered, Timely, Efficient, Equitable

- Engaged patients are at the center of framework
- Adequately-staffed, trained and coordinated workforce
- Evidence-based cancer care
- A learning health care IT system for cancer
- Translation of evidence into clinical practice, quality measurement, and performance improvement
- Accessible, affordable cancer care

IOM Report - Delivering High-Quality Cancer Care, 2013

Clinical Management

Framework for decision making in cancer screening, diagnosis, treatment, support, and on-going care

- Objectives of care, appropriate interventions and timelines
- Care plans aligned to the local context
- Clinical practice guidelines to standardize care
- A comprehensive cancer centre should have
  - practice guidelines for various clinical scenarios
  - process for multidisciplinary decision making and review
  - process for review of the quality of clinical care
- Engagement in research / training programs